AMENDMENTS

The claims in the Application are as follows:

CLAIMS:

1. (CURRENTLY AMENDED) A method of using an electrosurgical system for treatment of a contained herniation of an intervertebral disc of a patient, the electrosurgical system including a power supply unit functionally coupled to at least one active electrode, the at least one active electrode disposed on a shaft distal end of an electrosurgical probe, and the method comprising:

a) guiding the shaft distal end within the intervertebral disc such that the at least one active electrode is in the vicinity of the contained herniation; and

b) applying a sufficient high frequency voltage between the at least one active electrode and at least one return electrode to generate plasma at the active electrode, wherein at least a portion of tissue in the vicinity of the contained herniation is ablated with said plasma.

2. (PREVIOUSLY PRESENTED) The method of claim 1, further comprising, before said step a):

c) advancing an introducer needle towards the intervertebral disc, the introducer needle including a lumen and a needle distal end;

d) passing the shaft distal end through the lumen distally beyond the needle distal end, wherein the at least one active electrode avoids contact with the needle distal end; and after step b),

e) retracting the shaft distal end into the lumen of the introducer needle, wherein the at least one active electrode avoids contact with the needle distal end.

3. (PREVIOUSLY PRESENTED) The method of claim 1, wherein the at least one return electrode is located on the shaft or on a dispersive pad.

4. (PREVIOUSLY PRESENTED) The method of claim 1, wherein the contained herniation comprises a bulge in a nucleus pulposus of the disc and the bulge in the nucleus pulposus is contained within an annulus fibrosus of the disc.

5. (PREVIOUSLY PRESENTED) The method of claim 1, wherein said step b) results in molecular dissociation of disc tissue in the vicinity of the contained herniation, and the volume of the nucleus pulposus is decreased.

6. (PREVIOUSLY PRESENTED) The method of claim 2, wherein the guiding step is performed after the shaft distal end has been extended distally beyond the needle distal end.

7. (PREVIOUSLY PRESENTED) The method of claim 1, wherein the guiding step comprises rotating the shaft about its longitudinal axis.

8. (PREVIOUSLY PRESENTED) The method of claim 7, wherein the guiding step further comprises axial translation of the shaft.

9. (PREVIOUSLY PRESENTED) The method of claim 1, wherein the shaft has a pre-defined curvature both prior to and after said guiding step.

10. (PREVIOUSLY PRESENTED) The method of claim 1, wherein the method is performed percutaneously.

11. (PREVIOUSLY PRESENTED) The method of claim 1, wherein said step a) is performed under fluoroscopy, and the position of the shaft distal end relative to the contained herniation is visualized fluoroscopically.

12. (PREVIOUSLY PRESENTED) The method of claim 11, wherein the shaft includes a radiopaque tracking device on the shaft distal end, or at least one radiopaque depth marking.

13. (PREVIOUSLY PRESENTED) The method of claim 9, wherein the pre-defined curvature comprises a first curve and a second curve proximal to the first curve, and the first curve and the second curve are in the same plane relative to the longitudinal axis of the shaft.

14. (PREVIOUSLY PRESENTED) The method of claim 13, wherein the first curve is characterized by a first angle and the second curve is characterized by a second angle, wherein

the first angle is in the range of from about 2° to about 8°, and the second angle is in the range of from about 4° to about 18°.

15. (PREVIOUSLY PRESENTED) The method of claim 1, wherein the at least one active electrode comprises an electrode head having a substantially apical spike and a substantially equatorial cusp, and the apical spike and the equatorial cusp provide a high current density in the vicinity of the electrode head upon application of the high frequency voltage between the at least one active electrode and the return electrode, the high current density promotes formation of a plasma in the vicinity of the electrode head, and the plasma causes localized ablation of disc tissue at a temperature in the range of from about 45° C to about 90° C.

16. (PREVIOUSLY PRESENTED) The method of claim 1, wherein the disc comprises a fragment of nucleus pulposus.

17. (PREVIOUSLY PRESENTED) The method of claim 1, wherein the method is performed in conjunction with epidural injection of a steroid.

18. (CURRENTLY AMENDED)A method of ablating tissue at a target site of an intervertebral disc having a contained herniation, the method comprising:

a) providing an electrosurgical system including a probe, an introducer needle, and a power supply unit coupled to the probe, the probe having a shaft, the shaft including a distal end portion having at least one active electrode, the introducer needle having a lumen for accommodating axial movement of the shaft therein;

b) advancing the introducer needle towards the intervertebral disc;

c) passing the shaft distal end portion distally through the lumen of the introducer needle towards the disc, wherein the shaft distal end portion is positioned in the vicinity of the contained herniation; and

d) applying a sufficient high frequency voltage between the at least one active electrode and at least one return electrode to generate plasma at the active electrode, the high frequency voltage selected for ablating disc tissue at the target site.

19. (PREVIOUSLY PRESENTED) The method of claim 18, wherein the target site comprises a bulge in a nucleus pulposus, the bulge in the nucleus pulposus is contained within an annulus fibrosus, and the method further comprises:

e) guiding the shaft distal end portion to the bulge in the nucleus pulposus.

20. (PREVIOUSLY PRESENTED) The method of claim 19, wherein the shaft distal end portion has a pre-defined curvature, and said step e) comprises:

f) during said step c), rotating the shaft about its longitudinal axis.

21. (PREVIOUSLY PRESENTED) The method of claim 18, wherein the method is performed percutaneously under fluoroscopy, and the position of the shaft distal end portion relative to the target site is visualized fluoroscopically.

22. (PREVIOUSLY PRESENTED) The method of claim 18, wherein said step d) results in ablation of disc tissue, the volume or the mass of the disc tissue is decreased, and discogenic pain is alleviated.

23. (PREVIOUSLY PRESENTED) The method of claim 18, wherein said step d) comprises applying a high frequency voltage in the range of from about 150 volts rms to about 350 volts rms between the at least one active electrode and the at least one return electrode, such that disc tissue at the target site is ablated at a temperature in the range of from about 45° C to about 90° C.

24. (PREVIOUSLY PRESENTED) The method of claim 18, further comprising:

h) applying a quantity of an electrically conductive fluid in the vicinity of the at least one active electrode.

25. (PREVIOUSLY PRESENTED) The method of claim 18, wherein the shaft includes a first curve and a second curve proximal to the first curve, and the first curve and the second curve are in the same plane relative to the longitudinal axis of the shaft

26. (PREVIOUSLY PRESENTED) The method of claim 18, wherein the at least one active electrode includes a filament, the shaft includes a first insulating sleeve encasing the

filament, a return electrode on the first insulating sleeve, an insulating collar located at a distal end of the first insulating sleeve proximal to the return electrode, a second insulating sleeve on the return electrode, and a shield on the second insulating sleeve.

27. (PREVIOUSLY PRESENTED) The method of claim 18, wherein the at least one active electrode comprises an electrode head having a substantially apical spike and a substantially equatorial cusp, and the apical spike and the equatorial cusp provide a high current density in the vicinity of the electrode head upon execution of said step d).

28. (PREVIOUSLY PRESENTED) The method of claim 18, further comprising the step of:

l) injecting a steroid into an epidural space adjacent to the intervertebral disc.